



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/711,611

09/28/2004

Tatsuya Kawakami

SIC-04-032

5610

29863

7590

05/12/2009

DELAND LAW OFFICE

P.O. BOX 69

KLAMATH RIVER, CA 96050-0069

EXAMINER

LUONG, VINH

ART UNIT

PAPER NUMBER

3656

MAIL DATE

DELIVERY MODE

05/12/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/711,611	Applicant(s) KAWAKAMI, TATSUYA	
	Examiner Vinh T. Luong	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-21,23,24 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3656

1. A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 10, 2009 has been entered.
2. The restriction and Applicant's election of the species of FIGS. 5-6B without traverse in the reply filed on January 16, 2008 in parent application are carried over to the instant RCE. See MPEP § 819.
3. Claim 22 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 16, 2008.
4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter, such as, e.g., "a *first* biasing location" and "a *second* biasing location" in claim 1. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction is required.
5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1, 3-21, 23, 24, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiura (US Patent No. 6,508,341 B1).

Claim 1

Hiura teaches an apparatus comprising:

a first engaging member 4/5 (FIGS. 1-10) or 44/45 (FIGS. 11-17);

a movable second engaging member 3 or 43;

Art Unit: 3656

wherein the first engaging member 4/5 or 44/45 engages the second engaging member 3 or 43; and

a biasing mechanism 6/7 or 46/47 that applies a biasing force to bias the first engaging member 4/5 or 44/45 at a first biasing location (e.g., FIG. 4 or 12) on the first engaging member 4/5 or 44/45 so that the first engaging member 4/5 or 44/45 engages the second engaging member 3 or 43;

wherein, while the first engaging member 4/5 or 44/45 engages the second engaging member 3 or 43 and the second engaging member 3 or 43 moves, the biasing mechanism 6/7 or 46/47 applies the biasing force to a different second biasing location (e.g., FIG. 7 or 14) on the first engaging member 4/5 or 44/45 so that an engaging force applied between the first engaging member 4/5 or 44/45 and the second engaging member 3 or 43 is capable of being less than the engaging force applied between the first engaging member 4/5 or 44/45 and the second engaging member 3 or 43 when the biasing mechanism applies the biasing force to the first biasing location (e.g., FIG. 4 or 12).

Claim 1 and other claims below are anticipated by Hiura because Hiura teaches each and every positively claimed element in the claim. On the one hand, a recitation of the intended use of the claimed invention (“for reducing an engaging force of an engaging member for a bicycle component”) must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then, it meets the claim. *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). On the other hand, it is well settled that the claims drawn to an apparatus must

Art Unit: 3656

distinguish from prior art in terms of structure rather than function. *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997); *In re Danly*, 120 USPQ 528 (CCPA 1959); *Ex parte Masham*, 2 USPQ2d 1647 (BPAI 1987) and MPEP § 2114. Moreover, the “wherein” or “whereby” clause that merely states the inherent results of limitations in the claim adds nothing to the claim’s patentability or substance. *Texas Instruments Inc. v. International Trade Commission*, 26 USPQ2d 1018 (Fed. Cir. 1993); *Griffin v. Bertina*, 62 USPQ2d 1431 (Fed. Cir. 2002); and *Amazon.com Inc. v. Barnesandnoble.com Inc.*, 57 USPQ2d 1747 (Fed. Cir. 2001).

Claim 3

The second engaging member 3 or 43 comprises a positioning unit 2, 3 or 42, 43. Referring the second engaging member to a merely inferentially included element or an intended use element, such as, a bicycle shift control device is not accorded patentable weight.

Claim 4

The first engaging member 4/5 or 44/45 comprises a positioning member 4/5 or 44/45 that engages the positioning unit 2, 3 or 42, 43 to maintain the positioning unit 2, 3 or 42, 43 in a selected position.

Claim 5

The biasing mechanism 6/7 or 46/47 applies the biasing force to the positioning member 2, 3 or 42, 43.

Claim 6

The positioning member 2, 3 or 42, 43 and the biasing mechanism 6/7 or 46/47 moves relative to the other to reduce the biasing force when the positioning unit 2, 3 or 42, 43 moves.

Claim 7

Art Unit: 3656

The positioning member 4/5 or 44/45 moves or is capable of moving in response to movement of the positioning unit 2, 3 or 42, 43.

Claim 8

The positioning member 4/5 or 44/45 moves or is capable of moving relative to the biasing mechanism 6/7 or 46/47 when the positioning unit 2, 3 or 42, 43 moves so that the biasing mechanism 6/7 or 46/47 applies the biasing force to the different biasing location.

Claim 9

The positioning member 4/5 or 44/45 moves or is capable of moving together with the positioning unit 2, 3 or 43 when the positioning unit 2, 3 or 42, 43 moves.

Claim 10

The movement of the positioning member 4/5 or 44/45 causes the biasing mechanism 6/7 or 46/47 to apply the biasing force to the different biasing location.

Claim 11

The positioning unit 2, 3 or 42, 43 comprises a plurality of positioning teeth 12 or 52, and wherein the positioning member 4/5 or 44/45 comprises a positioning pawl 4/5 or 44/45 that engages selected ones of the plurality of positioning teeth 12 or 52 to maintain the positioning unit 2, 3 or 42, 43 in the selected position.

Claim 12

The positioning unit 2, 3 or 42, 43 and the positioning pawl 4/5 or 44/45 move relative to each other so that the positioning pawl 4/5 or 44/45 moves over at least one of the plurality of positioning teeth 12 or 52, and wherein the biasing mechanism 6/7 or 46/47 applies the biasing force to the different second biasing location so that the biasing force is reduced when the

Art Unit: 3656

positioning member 4/5 or 44/45 moves over the at least one of the plurality of positioning teeth 12 or 52.

Claim 13

The biasing mechanism 6/7 or 46/47 increases or is capable of increasing the biasing force to the positioning member 4/5 or 44/45 after the positioning member 4/5 or 44/45 moves over the at least one of the plurality of positioning teeth 12 or 52.

Claim 14

The biasing mechanism 6/7 or 46/47 applies or is capable of applying the biasing force to substantially the same biasing location before and after the positioning member 4/5 or 44/45 moves over the at least one of the plurality of positioning teeth 12 or 52.

Claim 15

The positioning pawl 4/5 or 44/45 moves or is capable of moving relative to the biasing mechanism 6/7 or 46/47 when the positioning unit 2, 3 or 42, 43 moves so that the biasing mechanism 6/7 or 46/47 applies the biasing force to the different second biasing location.

Claim 16

The positioning pawl 4/5 or 44/45 moves or is capable of moving together with the positioning unit 2, 3 or 42, 43 when the positioning unit 2, 3 or 42, 43 moves.

Claim 17

The movement of the positioning member 4/5 or 44/45 inherently causes the biasing mechanism 6/7 or 46/47 to apply the biasing force to the different second biasing location.

Claim 18

Art Unit: 3656

A mounting member 1 or 41 supports the positioning unit 2, 3 or 42, 43 and the positioning pawl 4/5 or 44/45, and wherein the biasing mechanism 6/7 or 46/47 is secured relative to the mounting member 1 or 41.

Claim 19

The positioning unit 2, 3 or 42, 43 rotates/is capable of rotating to move the positioning pawl 4/5 or 44/45.

Claim 20

The biasing mechanism 6/7 or 46/47 comprises a spring 6/7 or 46/47.

Claim 21

The biasing mechanism 6/7 or 46/47 comprises a coil spring 6/7 or 46/47.

Claim 23

The movement of the second engaging member 3 or 43 is capable of causing the biasing mechanism 6/7 or 46/47 to reduce the biasing force applied to the first engaging member 4/5 or 44/45. See *Texas Instruments Inc. v. International Trade Commission*; *Griffin v. Bertina*; and *Amazon.com Inc. v. Barnesandnoble.com Inc.*, *supra*.

Claim 24

The biasing force applied by the biasing mechanism 6/7 or 46/47 is capable of changing from a first value to a second value while the second engaging member 3 or 43 is moving and the first engaging member 4/5 or 44/45 is contacting the second engaging member 3 or 43. *Texas Instruments Inc. v. International Trade Commission*; *supra*.

Claim 26

Art Unit: 3656

The positioning member 4/5 or 44/45 moves around a rotational axis 8 or 48 of the positioning unit 2, 3 or 42, 43.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1, 3-21, 23, 24, and 26 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Hiura.

Claims 1, 3-21, 23, 24, and 26

Hiura teaches the invention as claimed except that Hiura does not explicitly teach the “wherein” clause of claim 1.

As evidenced from Hiura’s drawings, particularly, FIGS. 1, 3-10 and 12-15, Hiura’s biasing mechanism engages Hiura's first engaging member at first and second biasing locations, consequently, the biasing mechanism applies different biasing forces on the first engaging member at the instant first and second locations, and consequently, creates different engaging forces. Among the different biasing forces, one obviously can try to select the different biasing

Art Unit: 3656

forces such that an engaging force applied between the first engaging member and the second engaging member is less than the engaging force applied between the first engaging member and the second engaging member when the biasing mechanism applies the biasing force to the first biasing location. The modification of Hiura's apparatus by selecting the biasing forces in order to have engagement forces as claimed would not have been uniquely challenging to a person of ordinary skill in the art because it is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement." *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) and it "does no more than yield predictable results." *KSR* at 1739. See also example (E) "Obvious to try" in MPEP 2143 and *Ball Aerosol and Specialty Container Inc. v. Limited Brands Inc.*, Fed. Cir., No. 2008-1333, 2/9/2009.

10. Claims 1, 3-7, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu (US Patent 6,497,163 B2).

Claim 1

Liu teaches an apparatus comprising:

a first engaging member 35;

a movable second engaging member 22;

wherein the first engaging member 35 engages the second engaging member 22; and

a biasing mechanism 36 that applies a biasing force to bias the first engaging member 35 at a first biasing location (e.g., FIG. 3) on the first engaging member 35 so that the first engaging member 35 engages the second engaging member 22;

Art Unit: 3656

wherein, while the first engaging member 35 engages the second engaging member 22 and the second engaging member 22 moves, the biasing mechanism 36 applies the biasing force to a different second biasing location (e.g., FIG. 5) on the first engaging member 35 so that an engaging force applied between the first engaging member 35 and the second engaging member 22 is capable of being less than the engaging force applied between the first engaging member 35 and the second engaging member 22 when the biasing mechanism applies the biasing force to the first biasing location (e.g., FIG. 3). See *In re Casey*; *In re Otto*; *In re Danly*; *Ex parte Masham*; *Texas Instruments Inc. v. International Trade Commission*; *Griffin v. Bertina*; and *Amazon.com Inc. v. Barnesandnoble.com Inc.*, *supra*.

Claim 3

The second engaging member 22 comprises a positioning unit 25, 45, 48 for a bicycle shift control device.

Claim 4

The first engaging member 35 comprises a positioning member 35 that engages the positioning unit 25, 45, 48 to maintain the positioning unit 25, 45, 48 in a selected position.

Claim 5

The biasing mechanism 36 applies the biasing force to the positioning member 35.

Claim 6

The positioning member 35 and the biasing mechanism 36 moves relative to each other to reduce the biasing force when the positioning unit 25, 45, 48 moves (FIGS. 5 and 6).

Claim 7

Art Unit: 3656

The positioning member 35 moves or is capable of moving in response to movement of the positioning unit 25, 45, 48 (FIGS. 5 and 6).

Claim 26

The positioning member 35 moves around a rotational axis 44 of the positioning unit 25, 45, 48 (FIGS. 4-8).

11. Claims 1, 3-7, and 26 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Liu.

Claims 1, 3-7, and 26

Liu teaches the invention as claimed except that Liu does not explicitly teach the “wherein” clause of claim 1.

As evidenced from Liu’s drawings, particularly, FIGS. 3-8, Liu’s biasing mechanism engages Liu's first engaging member at first and second biasing locations, consequently, the biasing mechanism applies different biasing forces on the first engaging member at the instant first and second locations, and consequently, creates different engaging forces. Among the different biasing forces, one obviously can try to select the different biasing forces such that an engaging force applied between the first engaging member and the second engaging member is less than the engaging force applied between the first engaging member and the second engaging member when the biasing mechanism applies the biasing force to the first biasing location. *KSR Int'l. Co. v. Teleflex Inc.*; example (E) “Obvious to try” in MPEP 2143; and *Ball Aerosol and Specialty Container Inc. v. Limited Brands Inc.*, *supra*.

12. Applicant's arguments filed February 10, 2009 have been fully considered but they are not persuasive.

The rejection under 35 USC 112 and the rejection under 35 USC 102(b) based on Campagnolo are withdrawn in view of Applicant's amendments to the claims.

With respect to the rejection under 35 USC 102(b) based on Hiura or Liu, Applicant asserted that a dependent claim cannot be anticipated when the corresponding parent claim has not been rejected over the same prior art.

As noted, MPEP 608.01(n) states: "a dependent claim is directed to a combination including everything recited in the base claim and what is recited in the dependent claim. *It is this combination that must be compared with the prior art, exactly as if it were presented as one independent claim.*" (Emphasis added). In other words, each of new claims 23-26 presented in the amendment filed on June 3, 2008 must be compared with the prior art, *exactly as if it were presented as one independent claim*. Hence, each of these claims can be anticipated independently when compared with the prior art. In any event, in the instant Office action, the corresponding parent claim has been rejected over the same prior art. Therefore, Applicant's arguments about Hiura or Liu are deemed to be moot.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3656

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Luong/
Primary Examiner, Art Unit 3656